



## Going Gluten free

### What is gluten and how does it relate to wheat?

Gluten is the general name for the proteins found in wheat. It is the thing that makes fresh bread and baked products wonderfully soft and bendy. But it is also one of the most inflammatory food molecules you can eat.

Many people often confuse wheat intolerances/allergies with gluten intolerances/coeliac disease. But there is a very important difference. Going wheat-free only cuts out wheat, but fails to cut out other products that use gluten extracts from wheat as additives (for e.g. in soy or tamari sauce).

### Who should avoid gluten?

Gluten-free diets are essential for those with Coeliac Disease, Non-Coeliac Gluten Sensitivity (NCGS), Irritable Bowel Syndrome (IBS), autoimmune disease (such as Hashimoto's disease and psoriasis), inflammatory diseases (such as Endometriosis, arthritis and Inflammatory bowel diseases) and thyroid disease generally. A gluten sensitivity however can also express itself as pain, fatigue, migraines, brain fog, depression, migraines, eczema, period problems, palpitations and infertility.

A wheat sensitivity or allergy usually presents as skin irritations, rashes, hives, nasal congestion, and digestive tract issues and migraines. People with these symptoms are ok following a wheat free or gluten free diet.

### Gluten's link to the immune system

Gluten can create two different types of immune reactions:

1. Coeliac disease - an autoimmune disease that can be diagnosed via a blood test (serology and coeliac genotype HLA-DQ2 and HLA-DQ8) and via endoscopy with a qualified gastroenterologist.
2. Non-Coeliac Gluten Sensitivity (NCGS) - which is hugely common but often missed by the medical community as it cannot be diagnosed via standard blood tests.

## Glutens effect on the gut

Gluten can negatively impact gut function thus increase symptoms by:

- Causing leaky gut - which drives inflammation. Leaky gut also allows for high levels of Lipopolysaccharides (LPS) & gram-negative bacteria leaking into the pelvis which can drive inflammation and the progression of disease generally.
- Increasing histamine levels by reducing diamine oxidase (DAO) production in the gut (DAO is the enzyme that breaks histamine down). This can lead to increased pain, fatigue, insomnia, anxiety/depression, grinding/clenching and digestion issues.
- Impacting pre-existing Small Intestinal Bacterial Overgrowth (SIBO) (as wheat is a FODMAP). There is also a higher incidence of SIBO in those with coeliac disease and Non-Coeliac Gluten Sensitivity (NCGS).

## Gluten-containing products to avoid

Please avoid all wheat flour-based breads, pasta, cereals, bran, breadcrumbs, Bulgar, Couscous, Cracker meal, flour, wheat containing products, Kamut, Matzoh, Seitan, Semolina, Spelt, traditional Tabouleh, Triticale and wheat.

Oats also need to be avoided (particularly in Australia) as there is a small chance of cross contamination from wheat fields. It is also best to avoid corn and its derived ingredients as it also contains a type of gluten called Zein which can affect the immune system in a similar way.

## Gluten can be sneaky

Gluten can also be hidden in other products as a food additive. Labels should be thoroughly checked. If 'gluten' or 'wheat' is on the label it needs to be avoided. Other products that may include gluten include:

- Biscuits, Breakfast cereals
- Flavouring (natural/artificial), French Fries
- Hydrolysed protein, Baking mixes/powder, Battered/ fried foods
- Canned soups/stocks, Icing sugar, Ice cream cones
- Lollies
- Malted milk, Pancakes
- Pastry, Processed meats, Sauces/gravy mixes
- Snack foods
- Soy sauce, Starch (e.g. modified, vegetable, gelatinized)
- Surimi
- Vegetable gum/starch, wheat bran/germ, flakes, self-raising flour, cake, durum, beers, ales, lagers, malted beverages, instant tea & coffee substitutes

## Possible substitutes

Always make sure to check food labels to make sure the product is gluten-free before purchasing a possible food substitute.

- Breads – buckwheat, millet, amaranth, chia, rice bread.
- Pasta – amaranth & quinoa, rice, spinach, buckwheat pasta; buckwheat/soba noodles (NB: check soba noodle labels on packets, they sometimes contain wheat flour).
- Cereals – buckwheat, quinoa, millet, rice flakes, rice puffs, organic oats, organic muesli, quinoa flakes, Quinoa porridge, brown rice flakes, millet flakes, organic cornflakes, soy bran, soy grits, raw nuts & seeds, shredded coconut.
- Grains – brown rice, wild rice, yellow/black/red quinoa, millet, amaranth, tapioca.
- Roots & Tubers – potato, tapioca, sweet potato, parsnip and Jerusalem artichoke.
- Flours – potato, rice, tapioca, sorghum, oat, chickpea, arrowroot, and bean flours.
- Snacks – popcorn, dried fruit, carob, sesame snacks, fruit/nut bars, wheat-free biscuits, rice cakes, corn cakes and other gluten-free products.
- Stocks/thickeners – Bouillon stock powder, sesame salt, tamari, mustard seeds, fresh dried herbs/spices, apple cider vinegar, authentic balsamic vinegar, wine vinegar, maize corn flour, soy flour, arrowroot and agar-agar.
- Beverages – organic wine, light rum, gin, tequila (without dyes), clear spirits, teas, coffee, mineral water, fresh fruit and vegetable juices.

## Other tips to wheat-free eating

- Stay away from packets when possible. Many things have wheat (thus gluten) added and labelling may be misleading.
- Familiarise yourself with gluten free cooking styles and ingredients. Preparing things at home means adapting recipes to include gluten free ingredients. In some cases, you can simply replace a wheat based item with a gluten free one. Pasta and flour are both available in gluten free versions specifically made for wheat free cooking.
- Consider switching the entire family to a gluten free lifestyle. This allows you to do gluten free cooking for everyone at once, and will cut down on your kitchen time. A gluten free diet is usually a healthy diet, so switching everyone to a gluten free plan can give your entire family a healthy boost as well.
- When eating out, choose foods without bread bases, crumbing, coatings, gravies and sauces. Ask restaurant staff for recommendations and make sure you tell them you have a gluten intolerance or coeliac disease.
- NB: Many suggest using spelt or kamut as replacements for wheat, unfortunately since they are close relatives to wheat, they often produce the same gluten intolerant reaction. Choices for replacements that are not as closely related are amaranth, buckwheat, quinoa, rice, arrowroot, tapioca, and millet. Blending these flours when cooking will more closely replicate the baking properties of wheat flour.

## Contamination

Foods can become contaminated with gluten during processing or even during food preparation or storage at home. Ways to prevent contamination at home include:

- Clean all surfaces before preparing foods.
- Use your own storage cupboards for food, separate from any other foods containing gluten in the household.
- Ensure food is stored in seal-tight containers.
- Use toaster bags.
- Use separate containers for jam, butter and chutneys or ensure that a clean knife is always used when serving.
- Use separate utensils and chopping boards during food preparation or make sure these are thoroughly cleaned before use.
- Make sure hands are thoroughly washed after handling gluten-containing food.
- Make sure that others in your household are aware of the condition and the importance of avoiding contamination.